



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX – PACIFIC SOUTHWEST REGION
75 Hawthorne Street
San Francisco, CA 94105-3901

August 9, 2016

In Reply Refer To: ENF-3-1

Mr. Don Kiefer
General Manager
Clean Harbors
Environmental Services
5756 Alba Street
Los Angeles, CA 90058

Re: Clean Water Act Pretreatment Inspection

Dear Mr. Kiefer:

Enclosed is the report for our September 14, 2015 Pretreatment inspection of Clean Harbors at the above address in Los Angeles, CA.

By September 13, 2016, please submit a short response letter to the Summary of Requirements and Recommendations section of this report. Your letter should include an individual response to each numbered concern.

Please send your letter to the attention of James Polek at EPA (and include the code "ENF-3-1" in the address above), with copies to the City of Los Angeles Bureau of Sanitation and to the Los Angeles Regional Water Quality Control Board.

In lieu of submitting the requested response by certified mail, Clean Harbors may submit the response as portable document files (pdfs) via electronic mail

We would like to thank you for your cooperation during the inspection. If you have any questions, please call James Polek at (415) 972-3185 or e-mail him at polek.jim@epa.gov.

Sincerely,

A handwritten signature in black ink, which appears to read "Ken Greenberg", is written over a horizontal line.

Ken Greenberg
Manager, Water Section I
Enforcement Division

Enclosure

cc (w/enclosure by email):

Theodore Higgins, City of Los Angeles Bureau of Sanitation
Cris Morris, Los Angeles Regional Water Quality Control Board

SITE VISIT DATA SHEET

INSTRUCTIONS: Record observations made during the IU site visit. Provide as much detail as possible.

Name of Industry: Clean Harbors Los Angeles, LLC

Address of Industry: 5756 Alba Street; Los Angeles, CA 90058

Date of visit: 9/14/2015

Time of visit: 1:00 p.m.

Name of inspector(s):

Theodore Higgins, Senior Environmental Compliance Inspector, City of Los Angeles (City)

Vangie Paragas, Environmental Compliance Inspector, City

Jim Polek, EPA Region 9

Eric Magnan, EPA Region 9

Danny O'Connell, EPA Contractor, PG Environmental, LLC

Kettie Holland, EPA Contractor, PG Environmental, LLC

[Handwritten signatures and dates]
Danny O'Connell 8/2/16
Kettie J. Holland 8/2/16

Provide the name(s) and title(s) of industry representative(s)

Name	Title	Phone/Email
Don Kiefer	General Manager	323-277-2500
Steve Peterson	Facility General Manager	Not provided
Edgar Militar	Laboratory Manager	Not provided
IU Permit Number: W-500467	Expiration Date: 6/30/2017	IU Classification: Categorical industrial user (CIU) subject to 40 CFR 437, Centralized Waste Treatment, Subpart D, Multiple Waste streams. Refer to note 1 in the Notes section for additional information.
Inspection Type/Purpose	<input checked="" type="checkbox"/> Scheduled <input type="checkbox"/> Unscheduled	<input type="checkbox"/> PCA <input checked="" type="checkbox"/> Industrial User Inspection
	<input type="checkbox"/> PCI <input type="checkbox"/> New Company	

Please provide the following documentation:

1. Nature of operation: The facility accepts and stores waste oil used in electrical transformer and capacitor units. The facility does not generate wastewater from this process, but collects and treats potentially contaminated stormwater that accumulates in the outdoor process area. The stormwater is collected, tested, and may be treated prior to being discharged to the City's publicly owned treatment works (POTW). The facility's process of accepting and collecting electrical transformer oil is a categorical operation. Stormwater collected from these categorical operations and discharged to the POTW is subject to 40 CFR 437.

2. Number of employees	Approximately 20.	Number of shifts:	Not reviewed (N/R).	Hours of operation:	6:00 a.m.—10:30 p.m.; Monday—Friday.
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3. Water source: N/R.

4. Wastestream flow(s) discharged to the POTW: The facility did not generate and discharge wastewater from its process operations. However, stormwater that may be contaminated with transformer/capacitor waste oil was collected in the outdoor process area and was pumped to a holding tank, where it was tested (and treated if necessary) prior to discharging to the City's POTW.

Sanitary:	N/R.	Process:	Approximately 615 gallons per	Combined:	N/R.
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			day (gpd) of potentially contaminated stormwater.		
5.	Describe any significant changes in process or flow: No significant changes in process or flow were observed at the facility during the inspection.				
6.	<p>Type of pretreatment system (Describe): The facility does not generate and discharge process wastewater from its transformer oil recovery process to the POTW but does collect stormwater potentially contaminated with transformer/capacitor oil. The stormwater may be pretreated prior to being discharged to the POTW. Specifically, stormwater collected at the facility's outdoor process area is pumped and stored in a 100,000 gallon holding tank (referred to as Tank V-9). According to the Laboratory Manager, when Tank V-9 contains between 60,000 and 80,000 gallons of stormwater, he collects a sample from the tank for analysis. If the stormwater sample meets the permitted discharge limits listed in the facility's permit, the facility will notify the City and will need to receive permission from the City to discharge prior to discharging the stormwater to the POTW.</p> <p>According to the facility representatives, if the stormwater does not meet the permitted discharge limits, the facility will hire a contractor deliver granular activated carbon (GAC) units to the facility to treat the stormwater. The facility will then re-analyze the stormwater and determine if it requires additional treatment prior to discharging to the City's POTW. The facility representatives reported that there has been one instance when the facility has had to filter the stormwater with GAC units prior to discharging. This instance occurred during December 2010 when the stormwater was contaminated with capacitor/transformer oil. During this time, the results of the stormwater analysis showed a concentration of 8-9 parts per billion (ppb) of polychlorinated biphenyls (PCBs) and the stormwater was treated prior to discharge.</p> <p>The Laboratory Manager stated that the facility discharges batches of stormwater to the POTW and maintains a log of these batch discharges. During the inspection process, the EPA Inspection Team asked for the date of the most recent event in which stormwater was discharged to the POTW. The Laboratory Manager stated that the most recent discharge event occurred during May 2015. According to the batch discharge log, the facility discharged approximately 76,000 gallons of stormwater during May 2015. Facility representatives stated that during these discharges, a facility representative and a city representative are present to supervise the discharge from Tank V-9 to the POTW. Refer to note 2 in the Notes section for additional information regarding the facility's sampling and discharge practices.</p>				
	Continuous flow	X	Batch		Combined
7.	<p>Condition/operation of pretreatment system (Describe): As previously stated, the facility did not have a pretreatment system but may have GAC treatment units delivered to the facility in the event that the stormwater needed to be treated prior to discharge. The GAC treatment units were not onsite at the time of the inspection</p> <p>At the time of the inspection, Tank V-9 contained approximately 2,000 gallons of liquid, at 4:03 p.m., according to the tank's level sensor (refer to Photograph 1). A puddle of unidentified liquid was accumulated on the concrete surface near Tank V-9 at the time of the inspection, refer to note 3 in the Notes section for additional information.</p> <p>Any unusual conditions or problems with the pretreatment system: The EPA Inspection Team identified discrepancies with the flow level entries documented in the log book (refer to Attachment 2). The EPA</p>				

Inspection Team also observed leaking pipes within the vicinity of Tank V-9. Refer to notes 3 and 4 in the Notes section for additional information.

8. Process area description (identify raw materials and processes used): The facility received electrical transformer and capacitor units (units) for recycling. The facility did not manufacture products from the raw materials. The facility had screening and profiling procedures for accepting units containing transformer/capacitor oil for new and existing clients. The facility removed and characterized the oil and hauled it offsite for treatment or disposal at a different location. The empty units are recycled. The following process operations were observed by or explained to the EPA Inspection Team during the inspection:
- Waste profiling process—When the facility receives waste from a new generator, the waste generator is required to submit an analysis of the transformer/capacitor oil that is to be received at the facility. The facility also collects and analyzes a sample from new client's units to confirm that the liquid is transformer/capacitor oil and to confirm the concentration of PCBs within the oil. The unit is put on hold, stored at the facility, and assigned a processing code until the results of the sampling analysis are complete. If the analysis confirms that the liquid consists of transformer/capacitor oil and is within the allowable concentration of PCBs, the facility will accept the unit. If the PCB concentration in the oil is at or below 49 parts per million (ppm) the oil will be pumped from the unit and transferred to a tank for storage and shipment to another facility for treatment or disposal. The empty units are recycled. If the PCB concentration in the oil is greater than 49 ppm the oil is not pumped from the unit; the full unit is stored and is shipped off for disposal.

In the event that the results of the analysis are inconsistent with the content of the unit according to the generator, or if the analysis shows high concentrations of PCBs, the facility will notify the generator and will either transfer the waste to location (different than the destination of the transformer oil accepted at the facility) or will reject the waste load.

If the waste is accepted at the facility, the PCB concentration is written on the unit and a barcode is attached to the transformer/capacitor so the unit can be traced throughout the facility. Waste is collected and stored depending upon the concentration of PCBs within the oil. Oil with a PCB concentration of < 2 ppm is collected within one storage area and oil with a PCB concentration between 2 and 49 ppm is collected within another storage area of the facility. According to the facility representatives, units containing oils with PCB concentrations greater than or equal to 49 ppm are not accepted at this facility (refer to Photographs 2 and 3).

The facility also has a process for accepting units from generators that frequently use the facility services. The facility will receive a batch of units from the generator and will test 10 percent of the batch to ensure that the units have a profile consistent with previously documented profiles. The 10 percent check also confirms the concentration of PCBs unique to this shipment. Once the analysis from the batch has been processed and the samples meet the specifications, the units in the batch are assigned a bar code. If units don't meet the specifications the units are either hauled to another facility or are rejected from the facility.

The facility representative stated that Howard Transformers are accepted at the facility. According to the representatives, these transformers contain oil with a PCB concentration of <2

ppm. Therefore, the PCB concentration of the transformer oil within the Howard Transformers are not typically confirmed by collecting and analyzing a sample.

- Waste processing—The units received at the facility were stored at the “pumping pad” which consisted of a concrete pad with overhead coverage. Here, the facility employees opened the transformer and collected a sample of transformer/capacitor oil for analysis. The units would then be marked with a grease marker depending on the concentration of PCBs in the oil (refer to Photographs 2 and 3).

Units containing oil with a PCB concentration of <2 ppm PCBs would be pumped to Tanks V-1 and V-2. Oil from Tanks V-1 and V-2 was then pumped to Tank V-10, a 20,000 gallon holding tank and would be transferred to another facility for treatment and disposal. Units with oil that had a PCB concentration between 2 and 49 ppm would be pumped to Tanks V-3 and V-4. Oil from Tanks V-3 and V-4 was then pumped to Tank V-8, a 100,000 gallon holding tank for collection and transport to another facility for treatment and disposal (refer to Photographs 4 through 6)

9. Condition/operation of process area (Describe): The facility’s process area was located on an impervious surface (concrete or asphalt) and was located outdoors, within the facility’s fence line. The process area was crowded with units, some of which were empty, full, or whose oil content had been sampled and were thus awaiting analysis.

Various pipes were located within the pumping pad process area. The facility representatives explained that a number of the pipes were left over from the facility’s past wastewater treatment process. The pipes were no longer in use at the time of the inspection. Numerous pipes were cut, capped, or disconnected.

Any unusual conditions or problems with the process area: The EPA Inspection Team observed housekeeping issues related to oil spills throughout the process area. Refer to note 3 in the Notes section for additional information.

10. General housekeeping in process area (Describe): The EPA Inspection Team observed several leaks and evidence of spills throughout the process area. Refer to note 3 in the Notes section for additional information.

Any unusual conditions or problems with general housekeeping in process area: Yes, the EPA Inspection Team observed oil stains on the pavement and accumulated oil leaking from various units throughout the facility during the inspection. Refer to note 3 in the Notes section for additional information.

11. Chemical storage area (identify the chemicals that are maintained on-site and how they are stored): The facility’s centralized chemical storage area was not observed as a component of the inspection.

Any floor drains?	N/R.	Any spill control measures?	Absorbent material was observed being applied to oil spills throughout various areas of the facility. Refer to note 3 in the Notes section for additional information.
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General housekeeping of chemical storage area (Describe): N/R.

12. Are hazardous wastes drummed and labeled? Hazardous waste in the form of transformer/capacitor waste oil was received at the facility. Hazardous waste labels were attached to the outside of the transformer and capacitor shells (refer to Photographs 7 and 8).

13. Does the IU have hazardous waste manifests? Yes, the facility maintains hazardous waste manifests for the transformers and capacitors received and stored at the facility.				
Any problems associated with hazardous waste: Various housekeeping issues were observed with waste handling at the facility. Refer to note 3 in the Notes section for additional information.				
14. Solid waste production: The facility produced solid waste in the form of used transformer/capacitor shells.				
Solid waste disposal method(s): The transformer/capacitor shells were collected for recycling at an offsite facility.				
15. Description of sample location: The facility's sampling point was located at a two-stage sampling box located to the west of the facility, outside of the facility's fence line. The facility was not discharging stormwater to the City's POTW at the time of the inspection (refer to Photograph 9).				
Sampling method/technique: Grab and composite samples were collected at the facility's sampling location.				
16. Evaluation of self-monitoring data?	Yes	X	No	N/A
If yes, was self-monitoring adequate: The facility's self-monitoring data was not reviewed as a component of the inspection.				
17. Who performs the self-monitoring analysis? This component was not reviewed as part of the inspection.				
Notes:				
<p>1. The facility representatives and City representatives stated that although the facility was not generating wastewater from its categorical process, the facility preferred to keep their wastewater permit (classifying the facility as a CWT) active in the event that the facility began generating and discharging CWT process wastewater to the POTW. The stormwater that is collected and may be potentially contaminated from the facility's CWT process is discharged to the POTW and is subject to the regulations at 40 CFR 437.</p> <p>2. The facility's Laboratory Manager explained that stormwater samples are collected from Tank V-9 to identify the concentration of PCBs and determine if the stormwater needs to be treated prior to discharging to the City's POTW. The Laboratory Manager stated that the tanks are not homogenized or mixed and that a sample is collected from a pipe leading from the bottom of the tank. Since the facility handles transformer/capacitor oil, it appeared to the EPA Inspection Team that the stormwater collected and stored within Tank V-9 may contain transformer/capacitor oil which would float at the top of the tank. Due to this phase differential, it was unclear to the EPA Inspection Team if samples collected utilizing the aforementioned technique would be representative of the concentration of oil within Tank V-9. Therefore, it is strongly recommended that the facility ensure that representative stormwater samples are taken utilizing a written technique that is representative of the constituents (e.g., oils) that may contaminate the stormwater collected at the facility.</p> <p>Additionally, the facility representatives stated that during the time in which the facility discharges stormwater from Tank V-9 to the City's POTW, a facility representative is present for periodic segments of the duration of the discharge. The facility representative is present to supervise and observe the stormwater during the discharge event. However, during conversations with the facility and City representatives, a facility representative does not supervise the stormwater for the entirety of the duration of the discharge. The facility has not implemented a standard operating procedures (SOP) or similar written document providing guidance for how the stormwater from Tank V-9 should be sampled or discharged to the City's POTW. Due to the nature of the oil that may contaminate the stormwater, it is</p>				

recommended that the facility implement a written process for sampling and discharging stormwater from Tank V-9 in a manner that does not jeopardize compliance with the discharge limitations included in the facility's permit.

3. During the inspection of the process area to the northeast of the pumping pad, the EPA Inspection Team identified multiple transformers that were leaking oil. The oil was actively leaking from one of the units. Evidence of past spills or leaks was also present on the pavement. The facility had applied solid absorbent material to the oil, however, transformer oil was still actively leaking from one of the units (refer to Photographs 10 through 14). The facility representatives stated that they had procedures in place to address spills and leaks of transformer oil at the facility; however, it did not appear that they were being implemented. It is recommended that the facility implement and adequately adhere to its spill prevention and clean up procedures to ensure that oils containing PCBs (i.e. hazardous waste liquids) are not leaking onto the pavement at the facility.

The EPA Inspection Team also observed a leaking pipe located at the southwestern area of the waste storage area where Tanks V-8, V-9 and V-10 were located. Leaking liquid dripped from the pipe and accumulated within the berm of the concrete pad and along the western and southwestern wall of the containment berm (refer to Photographs 15 and 16). The facility representatives explained that they had an electronic database system that was used to document inspections conducted throughout the process areas by facility representatives. The facility representatives also stated that in the event that the facility employees observed a maintenance issue, an entry would be generated in the facility's work order system and would be required to be addressed by a facility employee. According to the information provided from the facility's work order system, a work order had not been assigned to address the leaking pipe.

According to Part C.1 of the facility's permit, the industrial user shall at all times properly operate and maintain all facilities and systems for treatment and control (and related appurtenances) which are installed or used by the industrial user to achieve compliance with the conditions of the permit. Therefore, the facility is required to ensure that it properly operates and maintains its equipment to reduce the risk of contaminating stormwater with oil and ultimately achieve compliance with the discharge limits included in the facility's permit. It is further recommended that the facility ensure that it has the proper SOPs in place to identify, document, and respond to work orders and ultimately ensure that process equipment is adequately operated and maintained.

4. During the inspection of the facility's waste storage area containing the process tanks and Tank V-9, the EPA Inspection Team observed that the facility kept a level meter log book to record the various levels of the tanks (refer to Attachment 2). The EPA Inspection Team reviewed the entries in the log book and noted that the entries recorded in the log book showed varying volumes of stormwater within Tank V-9. Some of the entries varied by as much as 8,180 gallons (July 1 and 2, 2015). The facility representatives explained that the facility had last discharged stormwater to the City's POTW during May 2015. The facility representatives further explained that the facility had been experiencing issues with the meter readings for the various tanks in the waste storage area, and had many of the level meters replaced.

According to Part C.1 of the facility's permit, the industrial user shall at all times properly operate and maintain all facilities and systems for treatment and control (and related appurtenances) which are installed or used by the industrial user to achieve compliance with the conditions of the permit. Therefore, the facility is required to ensure that it properly operates and maintains its equipment

(including level sensors) used to achieve compliance with the permit as stated in Part C.1 of the facility's permit. The facility shall ensure that accurate level meters are recorded in the log book to appropriately document discharge events and maintain documents of said activities. Additionally, it is recommended that the City follow-up with the facility and request and receive documentation showing when the level meters for the tank were replaced to confirm the varying levels of stormwater stored in Tank V-9 according to the log book.

Table 1. Summary of Wastes Accepted at the Facility

Type of Waste	Treatment	Destination
Oil from electrical transformers and capacitors containing various concentrations of PCBs.	Waste is profiled and is either accepted and stored at the facility or is rejected from the facility.	The waste is stored and hauled offsite for treatment and disposal at another facility. Stormwater that accumulates within the outdoor process area is collected, tested, and may be treated prior to discharging to the City's POTW.

Summary of Requirements and Recommendations for the Facility

Requirements

Permit Citation: *"The industrial user shall at all times properly operate and maintain all facilities and systems for treatment and control (and related appurtenances) which are installed or used by the industrial user to achieve compliance with the conditions of the permit."*

- 1) The facility is required to ensure that it properly operates and maintains its equipment to reduce the risk of contaminating stormwater with oil and ultimately achieve compliance with the discharge limits included in the facility's permit.
- 2) The facility is required to ensure that it properly operates and maintains its equipment (including level sensors) used to achieve compliance. The facility shall ensure that accurate tank levels for Tank V-9 are recorded in the log book to appropriately document discharge events and associated activities.

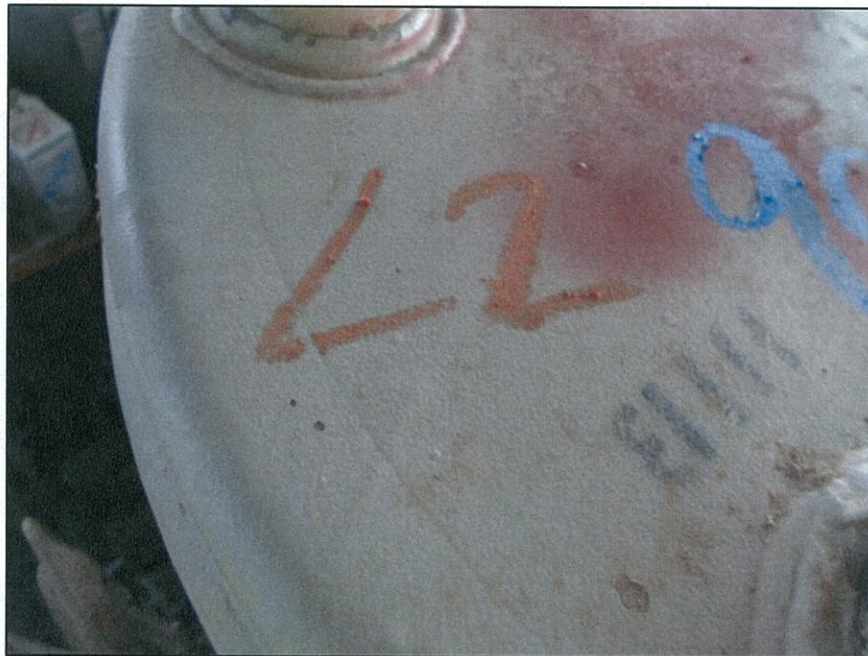
Recommendations

- 1) It is strongly recommended that the facility ensure that representative stormwater samples are collected utilizing a written technique that is representative of the constituents (e.g., oils) that may contaminate the stormwater collected at the facility and discharged to the POTW.
- 2) It is recommended that the facility implement a written process for sampling and discharging stormwater from Tank V-9 in a manner that does not jeopardize compliance with the discharge limitations included in the facility's permit.
- 3) It is recommended that the facility implement and adequately adhere to its spill prevention and clean up procedures to ensure that oils containing PCBs (i.e. hazardous waste liquids) are not leaking onto the pavement at the facility.
- 4) It is recommended that the facility ensure that it has the proper SOPs in place to identify, document, and respond to work orders and ultimately ensure that process equipment is adequately operated and maintained.
- 5) It is recommended that the City follow-up with the facility and request and receive documentation showing when the level meters for the tank were replaced to confirm the varying levels of stormwater stored in Tank V-9 according to the log book.

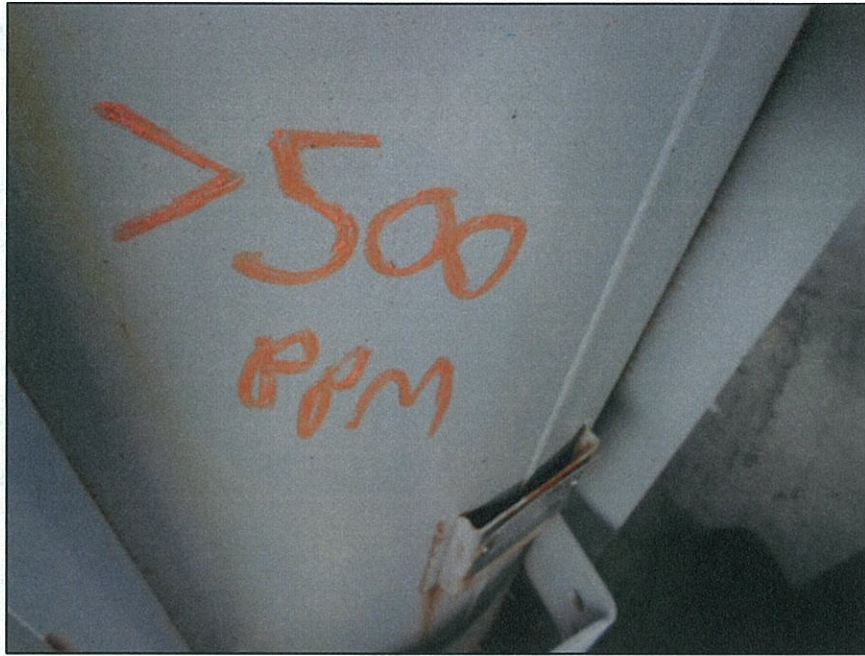
Appendix 1
Clean Harbors Los Angeles
Photograph Log



Photograph 1. View of the newly installed meter, displaying the volume of liquid stored within Tank V-9 at the time of the facility inspection.



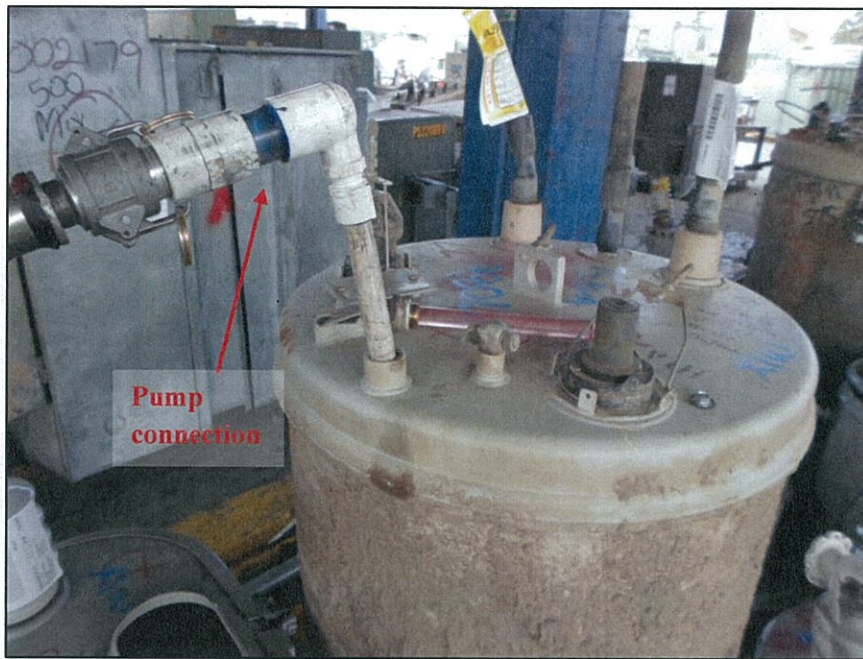
Photograph 2. View of a transformer containing transformer oil that has been analyzed and has a PCB concentration of <2 ppm. Note the markings with a grease marker made on the top of the unit.



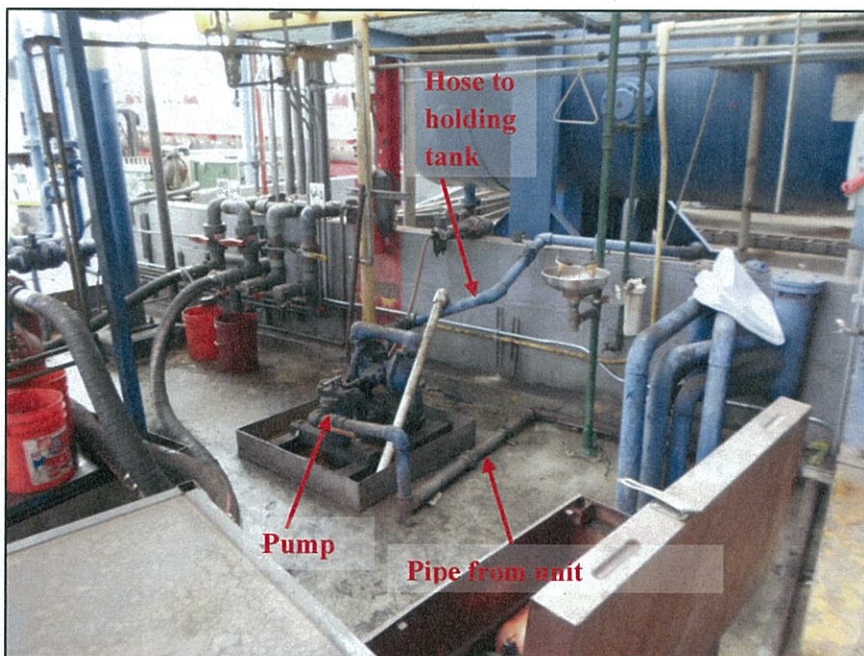
Photograph 3. View of a transformer unit stored at the facility's pumping pad. Note the grease marker states that the concentration of PCBs of the oil within the unit measure over 500 ppm. The facility representatives stated that some transformers are assumed to have a high ppm concentration even if the generator did not sample the oil. The facility analyzes a sample to identify the specific concentration of PCBs of the oil.



Photograph 4. View, facing northwest, of the pumping pad located at the northcentral area of the facility. Note the overhead coverage provided for the area.



Photograph 5. View of a unit stored on the pumping pad at the facility. Note the oil was being pumped from the unit at the time of the inspection.



Photograph 6. View of one of the pumps located to the south of the pumping pad used to transport oil from the units to a holding tank.



Photograph 7. View of the covered pump pad located at the northcentral area of the facility. Note the units stored within the area waiting to have oil removed.



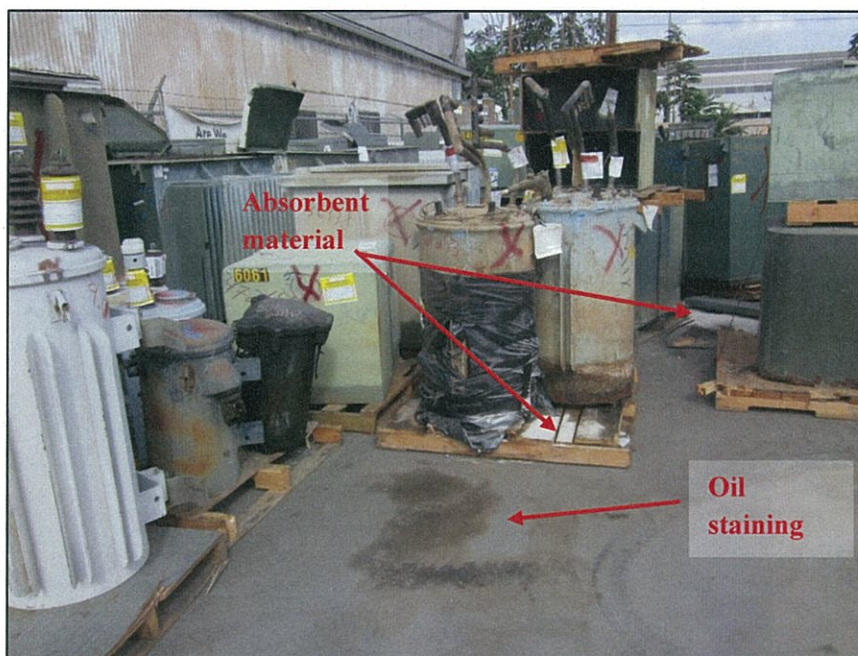
Photograph 8. View, facing west, of the units stored in the pumping pad area with overhead coverage. Note the units are marked and equipped with hazardous waste labels.



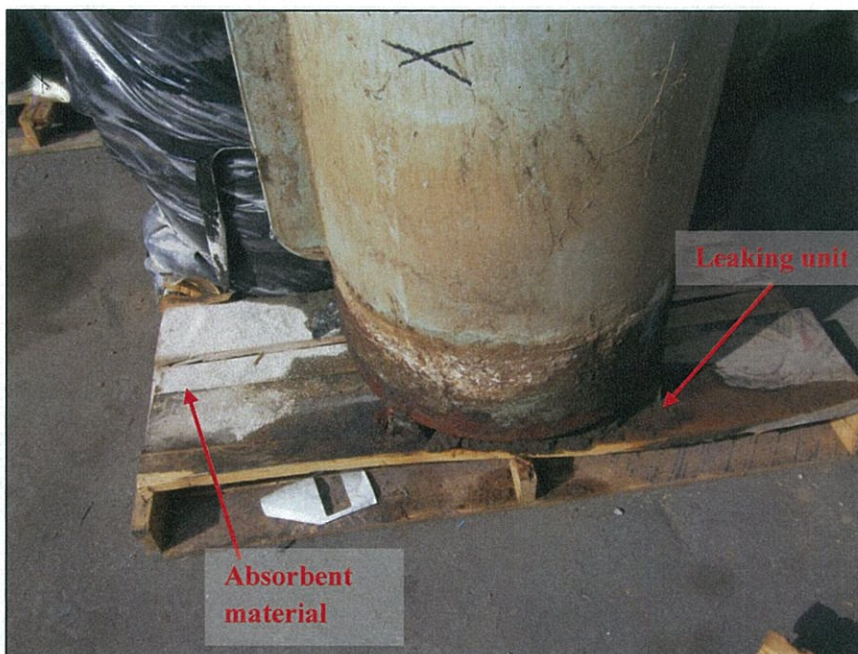
Photograph 9. View, looking down at the facility's final sampling location for stormwater discharges to the City's POTW. The sampling point was located outside of the facility's fence line.



Photograph 10. View, facing northeast, of transformers and capacitors accepted at the facility and stored within the facility's storage yard. Note the lack of overhead coverage provided for the units stored within this area of the facility.



Photograph 11. View, facing east, of units located at the northeastern area of the facility. Note the oil staining on the pavement and absorbent material applied to the wooden pallet in the vicinity of the units within the process area.



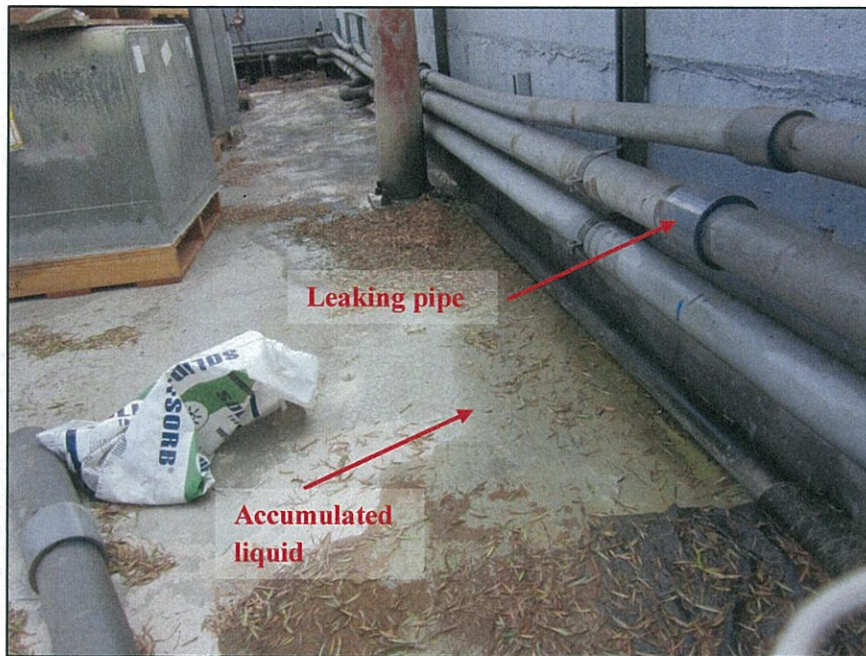
Photograph 12. Up close view of a leaking unit depicted in Photograph 11. Note the absorbent material applied to the pallet in the vicinity of the leaking unit.



Photograph 13. Additional view of leaking units depicted in Photograph 11. Note the stained pavement and the absorbent material in the vicinity of the leaking units.



Photograph 14. View of the leaking units stored at the northeast area of the facility. These units were stored in the same vicinity as the transformers and capacitors depicted in Photographs 10 through 13.



Photograph 15. View, facing west, of the leaking pipe and accumulated liquid from the leak at the western area of the waste storage area.



Photograph 16. Up-close view of the leaking pipe depicted in Photograph 15.

Attachment 2

**Additional Photographs of Level Sensor Log for Tank V-9
stored at the Facility (presented in chronological order)**

TANK ACTIVITY SHEET				
DATE	TIME	TANK#	TOTAL TANK VOLUME	GALLONS TRANSFERRED
6-29-15	14:00	V-9	13920	
6-29-15	22:00		13920	
6-30-15	6:00		13930	
6-30-15	14:00		13930	
6-30-15	22:00		13870	
7-1-15	6:00		13920	
7-1-15	14:00		13920	
7-01-15	14:00		13920	
7-01-15	22:00		13850	
7-2-15	6:00		13900	
7-2-15	13:00		13920	
7-02-15	13:00		5740	
7-02-15	20:00		5740	
7-6-15	6:00		5740	
7-6-15	14:00		5700	
7-06-15	14:00		5690	
7-06-15	22:00		5720	
7-7-15	6:00		5720	
7-7-15	14:00		5700	
7-17-15	14:00		5670	
7-07-15	22:00		5740	

TANK ACTIVITY SHEET			CleanHarbor's ENVIRONMENTAL SERVICES, INC.		
DATE	TIME	TANK#:	TOTAL TANK VOLUME	GALLONS TRANSFERRED	RECEIVED OR TRANSFERRED FROM (GALLONS)
7-8-15	6:00	V-9	5720		
7-8-15	14:00		5670		
7-08-15	14:00		5700		
7-08-15	22:00		5690		
7-9-15	6:00		5700		
7-9-15	14:00		5740		
7-09-15	14:00		5700		
7-09-15	22:00		5700		
7-10-15	6:00		5770		
7-10-15	13:00		13920		
7-10-15	13:00		13880		
7-10-15	20:00		5760		
7-11-15	6:00		5770		
7-13-15	14:00		13920		
7-13-15	14:00		13850		
7-13-15	22:00		5740		
7-14-15	6:00		5760		
7-14-15	14:00		13920		
7-14-15	14:00		5740		
7-14-15	22:00		5740		

*Note the change in the values documented in the last column (total tank volume) for Tank V-9.

CleanHarbors [®] ENVIRONMENTAL SERVICES, INC.			
TANK ACTIVITY SHEET			TANK#: 4-9
DATE	TIME	TOTAL TANK VOLUME	GALLONS TRANSFERRED
			RECEIVED OR TRANSFERRED FROM (GALLONS)
7-15-15	6:00	5720	
7-15-15	7:00	5740	
7-15-15	14:00	5720	
7-15-15	22:00	5760	
7-16-15	6:00	5740	
7-16-15	14:00	13610	
7-16-15	14:00	13960	
7-16-15	22:00	5770	
7-17-15	6:00	-5770	
7-17-15	18:00	5790	
7-17-15	20:00	5760	
7-20-15	6:00	5670	
7-20-15	14:00	2090	
7-20-15	22:00	5740	
7-21-15	6:00	5760	
7-21-15	14:00	5760	
7-21-15	22:00	5760	
07-21-15	5:00	5750	
07-27-15	2:00	5720	

TANK ACTIVITY SHEET				CleanHarbors [®]	
DATE		TIME	TANK#:	ENVIRONMENTAL SERVICES, INC.	
			TOTAL TANK VOLUME	GALLONS TRANSFERRED	RECEIVED OR TRANSFERRED FROM (GALLONS)
7-22-15	6:00		5760		
7-23-15	14:00		5720		
7-23-15	14:00		5670		
7-23-15	22:00		5730		
7-24-15	6:00		5770		
7-24-15	13:00		5770		
7/24/15	20:00		5760		
7-27-15	6:00		5790		
7-27-15	14:00		5770		
7-27-15	19:00		5830		
7-27-15	22:00		5830		
7-28-15	6:00		5740		
7-28-15	14:00		5760		
7-28-15	14:00		5720		
7-28-15	22:00		5810		
7-29-15	6:00		5760		
7-29-15	14:00		5740		
			5720		
			5840		
7-30-15	6:00		5840		

<div> <div>Clean Harbors</div> <div>ENVIRONMENTAL SERVICES, INC.</div> </div>					
TANK ACTIVITY SHEET		TANK#: V-9			
DATE	TIME	TOTAL TANK VOLUME	GALLONS TRANSFERRED	RECEIVED OR TRANSFERRED FROM (GALLONS)	SHI TRANS (G)
7-30-15	5:40				
7-30-15	14:00	5740			
		1050			
7-31-15	6:00	1880			
7-31-15	18:00	2060			
7/31/15	20:00	5810			
8-3-15	6:00	9999			
8-3-15	14:00	5760			
8-03-15	14:00	5760			
8-03-15	22:00	5810			
8-4-15	6:00	5860			
8-4-15	14:00	5790			
8-04-15	17:00	5720			
8-04-15	22:00	5860			
8-5-15	6:00	5890			
8-5-15	14:00	6770			
8-05-15	14:00	5740			
8-05-15	22:00	5890	150		SCE?
8-6-15	6:00	5790			
8-06-15	14:00	5740			
8-06-15	22:00	5740			

Clean Harbors ENVIRONMENTAL SERVICES, INC.				
TANK ACTIVITY SHEET				
DATE	TIME	TANK#	TOTAL TANK VOLUME	GALLONS TRANSFERRED
8-7-15	6:00	✓-9	5770	RECEIVED OR TRANSFERRED FROM GALLON
8-7-15	13:30		5740	
8-07-15	13:30		5700	
8-07-15	20:00		5700	
8-10-15	6:00		5720	
8-10-15	14:00		5720	
8-10-15	14:00		5700	
8-10-15	22:00		5830	
8-11-15	5:00 AM		5720	
8-12-15	2:00		5720	
8-12-15	6:00		5740	
8-12-15	14:00		5790	
8-12-15	14:00		5790	
8-12-15	22:00		5780	
8-12-15	6:00		5770	
8-13-15	14:00		5770	
8-13-15	14:00		5770	
8-13-15	22:00		5890	
8-14-15	6:00		5770	
			5810	

CleanHarbor's ENVIRONMENTAL SERVICES, INC.				
TANK ACTIVITY SHEET				
DATE	TIME	TANK#	TOTAL TANK VOLUME	GALLONS TRANSFERRED
8-14-15	20:00	V-7	5810	RECEIVED OR TRANSFERRED FROM (GALLONS)
8-17-15	6:00		5790	
8-17-15	14:00		5790	
8-17-15	14:00		5720	
8-17-15	22:00		5810	
8-18-15	6:00		5790	
8-18-15	14:00		5760	
8-18-15	14:00		5700	
8-19-15	6:00		5840	
8-19-15	2:00		5760	
8-19-15	14:00		5700	
8-19-15	22:00		5840	
8-20-15	6:00		5700	
8-20-15	14:00		5740	
8-20-15	14:00		5670	
8-20-15	22:00		5670	
8-21-15	6:00		5700	
8-21-15	13:00		5760	
8-21-15	14:00		5760	
8-21-15	19:00		5760	

<div> <div>CleanHarbors</div> <div>ENVIRONMENTAL SERVICES, INC.</div> </div>					
TANK ACTIVITY SHEET			TANK#: V-9		
DATE	TIME	TOTAL TANK VOLUME	GALLONS TRANSFERED	RECEIVED OR TRANSFERRED FROM (GALLONS)	SHIPPED TRANSFER (GALLONS)
8-24-15	6:00	5760			
8-24-15	14:00	5770			
8-24-15	14:00	5770			
8-24-15	22:00	5790			
8-25-15	6:00	5770			
8-25-15	2:00	5770			
8-25-15	14:00	5770			
8-25-15	22:00	5810			
8-26-15	6:00	5810			
8-26-15	14:00	5740			
8-26-15	2:00	5740			
8-26-15	14:00	5830			
8-26-15	22:00	5830			
8-27-15	5:00	5830			
8-27-15	2:00	5770			
8-27-15	14:00	5760			
8-27-15	22:00	5830			
8-28-15	5:00	5840			
8-28-15	2:00	5810			
8-28-15	20:00	5810			

CleanHarbors ENVIRONMENTAL SERVICES, INC.				
TANK ACTIVITY SHEET				
DATE	TIME	TANK#	TOTAL TANK VOLUME	GALLONS TRANSFERRED
8-31-15	5:00	V-9	5810	RECEIVED OR TRANSFERRED FROM (GALLONS)
8-31-15	14:00		5810	
8-31-15	22:00		5810	
9-1-15	6:00		5760	
9-1-15	14:00		5720	
9-01-15	14:00		5720	
9-01-15	22:00		5740	
9-2-15	6:00		5720	
9-2-15	14:00		5720	
9-02-15	14:00		5720	
9-02-15	22:00		5770	
9-3-15	6:00		5700	
9-3-15	14:00		5700	
9-03-15	14:00		5700	
9-03-15	22:00		5700	
9-4-15	11:00		5720	
9-04-15	13:00		5720	
9-04-15	20:00		5790	
9-6-15	6:00		5700	
9-6-15	14:00		5810	

CleanHarbors ENVIRONMENTAL SERVICES, INC.				
TANK ACTIVITY SHEET			TANK#: V-9	
DATE	TIME	TOTAL TANK VOLUME	GALLONS TRANSFERED	RECEIVED & TRANSFERRED FROM (GALLONS)
9-08-15	14:00	5810		
9-08-15	22:00	5790		
9-9-15	6:00	5810		
9-9-15	14:00	5789		
9-09-15	14:00	5789		
9-09-15	22:00	5780		
09-10-15	5:00	5780		
9-10-15	14:00	2040		
9-10-15	22:00	2060		
9-11-15	6:00	2020		
9-11-15	13:00	2020		
9-11-15	14:00	2020		
9-11-15	20:00	1970		
9-14-15	6:00	2090		
9-14-15	14:00	2000		